



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,568	09/27/2001	Julie J. Hand	S-80,958	3784

7590 06/07/2005

Paul A. Gottlieb
United States Department of Energy
GC-62 (FORSTL) MS-6F-067
1000 Independence Ave, S.W.
Washington, DC 20585-0162

EXAMINER

HYUN, PAUL SANG HWA

ART UNIT	PAPER NUMBER
----------	--------------

1743

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/966,568

Applicant(s)

HAND ET AL.

Examiner

Paul S. Hyun

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/27/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "12" has been used to designate both "quick connect fitting" and "filter". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

In line 14 of page 5 of the Specification, the word "has" is missing between the words "vessel (5)" and "a".

In line 2 of page 7 of the Specification, the word "has a" should be changed to "with".

Appropriate corrections are required.

Claim Objections

-Claim 7 is objected to because of the following informalities:

There is insufficient antecedent for the words "said bag" and "said cap". Since claim 7 is dependent solely on claim 1, proper antecedents must be present in claim 1 or previously mentioned in the same claim.

-Claims 10, 11, 18, 28 and 30 are objected to because the use of the trademarks TEFLON and TEDLAR have been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Because trademarks and tradenames are not subject to constraints, they are not to be used in claims. The trademarks TEFLON and TEDLAR should be replaced by their generic terminology.

The words "downflow/down flow" mentioned in claims 1, 2, 12, 15, 17, 24 and 27, "upflow/up flow" mentioned in claims 1, 2, 11, 15 and 24, and "sidewalls/side walls" mentioned in claims 1, 2 and 15 are not spelled in consistent manners. Therefore, it is unclear whether the corresponding terms are referring to the same feature.

Claim 20 is objected to because of the following informality:

The word "a" in line 3 of the claim should be omitted.

Claim 26 is objected to because of the following informality:

The word "for " should be inserted before the phrase "18 hours" in line 3 of the claim.

Appropriate corrections are required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-13 and 15-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear as to what "first connector," "second connector," "third connector" and "fourth connector" mentioned in the claims are referring to. The four connectors as used in the claims are not mentioned in the Specification.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, 8, 9 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ray et al. (U.S. Patent 5,607,234).

In reference to claim 1, the Ray et al. reference discloses a zero-headspace extractor that comprises a container having a top 44 with a port 26 with up flow and down flow sides, a bottom 64 and side walls 42 (see FIG 3).

The reference also discloses the use of a removable liner (not pictured) lining the cylinder 10. The organic compounds placed inside the liner/cylinder flows to the opening at the top of the container via the filter 28 and port 26 (see FIG 3), wherein the filter acts as the third connector in contact with first connector, port 26.

In reference to claims 6 and 8, Ray et al. describe the invention as noted above and the reference discloses that the container is constructed of stainless steel (see (20) Detailed Description of Specification).

In reference to claim 9, Ray et al. describe the invention as noted above and the container has an opening at the bottom with a manually operable piston 54 inserted therein (see FIG 2).

In reference to claim 14, Ray et al. describe a zero-headspace extractor wherein the extraction steps comprise:

(a) sampling organic compound and placing it in the sample chamber 34 that is lined with a removable liner (not pictured) (see (6) Detailed Description);

(b) pressurizing the sample chamber inside cylinder 10 (see (28) Summary of the Invention);

(c) rotating the canister and sampling container (see (6) Detailed Description);

(d) pressurizing the sampling chamber (see (28) Summary of the Invention);

(e) filtering the organic compound and expelling the filtrate through port 26 for further processing (see (2) Brief Summary), wherein the port includes an inlet/outlet valve to connect with another container (see (4) Detailed Description).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ray et al.

In reference to claim 2, the Ray et al. reference describes the invention as previously noted and the container is a pressure vessel with connector openings 62 having an up flow and down flow affixed located at the bottom of the container. Furthermore, the top 44 of the container is removably attached to the side walls of the container creating a pressurized chamber (see (26) Detailed Description of Specification).

Even though the openings 62 disclosed in Ray et al.'s invention are not located on the side wall of the container, Applicant did not specify the advantage of the location of the opening and it appears that the openings disclosed in the reference would function just as well as the openings claimed by Applicant. It would have been obvious to place the openings 62 on the side wall of the device of Ray et al. in order to provide easy access to the opening.

In reference to claim 15, Ray et al. describe the method of extraction as previously noted wherein the canister is a pressure vessel having a top 44 and a bottom 64 and side walls 42. Furthermore, the top is removably attached to the side walls creating a pressurized chamber in the container (see (26) Detailed Description of Specification). Port 26 acts as the first connector and it contacts filter 28 that acts as the third connector. But, the opening with a second connector 62 is located on the bottom, not the sidewalls in the reference.

Even though the openings 62 disclosed in Ray et al.'s invention are not located on the side wall of the container, Applicant did not specify the advantage of the location of the opening and it appears that the openings disclosed in the reference would function just as well as the openings claimed by Applicant. It would have been obvious to place the openings 62 on the side wall of the Ray et al. device in order to provide easy access to the opening.

In reference to claim 16, Ray et al. describes the invention as previously mentioned wherein the step of pressurizing the sampling container comprises a pressure line being connected to the second connector 62 and a pressure fluid being introduced into the pressurized chamber (see (30,31) detailed Description).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ray et al. in view of Sinko (U.S. Patent 4,453,927). The Ray et al. reference describes the invention as noted above wherein filter 28 is attached to the top of the container allowing fluid to flow between cylinder 10 and filter 28, but it is in contact with the top flow side of the first connector, not the down flow side of the first connector. Moreover, filter 28 functions as a third connector and is directly attached to the top of the container, rather than by a separate fourth connector.

However, the art of placing the filter external to the main filtering device is well known. Sinko discloses a syringe that utilizes an external filter 19 attached to the

Art Unit: 1743

syringe via connector 18 (see FIG 1). It would have been obvious to one of ordinary skill in the art to utilize an external filter with the Ray et al. device so that the filter 28 is attached to the top of the container by a fourth connector in contact with the down flow side of the first connector. An external filter is more convenient to clean and replace than a filter that is integrally incorporated within the apparatus.

Allowable Subject Matter

Claims 3-5, 7, 10-13, and 18-30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

In reference to claims 3-5 and 7, Forsman et al. (U.S. Patent 6,820,780 B2) discloses a hydration system in the form of a bag that comprises reservoir 12, neck 42 (wide mouth opening), cap 52, and hose 22 (connector) located opposite the wide mouth opening (see FIG 1). However, it would not have been obvious to one of ordinary skill in the art to use this hydration system as a sampling bag to be used in conjunction with an extractor.

In reference to claims 10-13, Staunton (U.S. Patent 3,138,299 A) discloses a squeeze bottle pipette. The bottle 10 is made of TEFLON (see line 54, col. 2), and

Art Unit: 1743

further comprises wide mouth 12 and lid 16 (see FIG 1). However, it would not have been obvious to one of ordinary skill in the art to utilize the bottle disclosed by Staunton as a sampling container to be used in conjunction with an extractor.

In reference to claims 18-30, Ray et al. disclose filter 28 utilized within the extraction device wherein the filter comprises glass fiber sandwiched between upper and lower screens (see (4) Detailed Description). However, the reference does not disclose that the screens are stainless steel and it is also silent towards the use of Teflon blocks to encase the filter.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Calvin Calmon; et al. (U.S. Patent 3,223,619)


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul S. Hyun whose telephone number is (571)-272-8559. The examiner can normally be reached on Monday-Friday 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1743

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PSH 5/17/05


Jill Warden
Supervisory Patent Examiner
Technology Center 1700